

The Innovation Premium to Low Skill Jobs

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Discussion by

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Paper in brief

- Provides evidence that innovative firms pay more to low-skilled workers than non-innovative firms
- Contains a theory explaining the result
 - The value of a low skilled worker is higher in an innovative firm due to complementarity between low and high-skilled work in innovative firms
- Contributes to the topical research on innovation and income inequality
 - E.g. several papers by Aghion with various groups of coauthors

Comments: Evidence 1/2

- UK panel data 2004-2014, fixed effects regressions of R&D expenditures on wages
- Identification of a causal effect?

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- Identification of a causal effect?
 - Using the UK R&D tax credit regime to identify the causal effect?
 - In the UK, SMEs and large firms get substantially different R&D tax reliefs
 - A significant change in the large firm threshold in 2008
 - Variation in R&D tax credit rates a “standard instrument” for R&D (see, e.g. the papers by Daniel Wilson)
 - For the UK evidence, see Dechezleprêtre et al. (2016)

Comments: Evidence 2/2

- Measuring innovation
 - An innovative firm is one that invests at least one euro in R&D
 - What about using a larger threshold?
- Using patent data?
 - Typically forward cite-weighted patents most reliable measure of a firm's innovativeness

Comments: Theory 1/3

- In the production function

$$F(Q, q, \lambda) = Qq\lambda + (1 - \lambda)(Q + q)$$

parameter λ measures the extent to which low and high skilled work are complementary in

- Interpreted as *innovation*
- We need a theory of innovation that yields complementarity as a outcome

Comments: Theory 2/3

- It is assumed that
 - low-skilled workers are more difficult to replace than high-skilled workers
 - high-skilled workers have a stronger bargaining power in wage-negotiations
- Are these assumptions compatible? Needed?
- Can a search model with heterogenous workers create these features?

Comments: Theory 3/3

- It is assumed that low-skilled workers need costly in-house training
 - Could one start from here?
 - assume low-skilled workers need costly in house training
 - show that training need is increasing in the level of innovativeness of a firm
- ⇒ more costly to replace a low-skilled worker in an innovative firm because of his human capital is more firm-specific
- ⇒ in equilibrium the wage level and tenure of a low-skilled worker should be higher in an innovative firm